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December 6, 2005

Mr. Barry S. Drucker
Contracting Officer's Technical Representative
U.S. Department of the Interior - Mineral Management Service
Leasing Division / Sand and Gravel Unit
381 Elden Street, Mail Stop 4010
Herndon, Virginia 20170-4817
***Via email***

Baird

Dear Mr. Drucker:

**Re: MMS Contract 1435-01-05-CT-39150, Examination of the Physical and Biological Implications of Using Buried Channel Deposits and Other Non-Topographic Features as Beach Nourishment Material**

This letter is our first progress report on the above noted project. A summary by task is listed below.

***Task 1 Compilation and Synthesis of Existing Physical and Biological Information***

*Task 1.1 Assemble Information on Geology and Geomorphology of GOM and Atlantic Coasts*

Dr. Anderson of Rice University and his colleagues have completed a report on buried channel deposits for the Texas coast of the GOM. Edits suggested by Baird have been made and a final version of the report has been submitted to us.

Dr. Miles Hayes of RPI has completed a similar assessment of buried channels and non-topographic deposits for the Atlantic coast. Edits suggested by Baird have been made and a final version of the report has been submitted to us.

Owing to his displacement by Hurricane Katrina, Dr. Kulp is about four weeks behind schedule on a similar report for the Louisiana coast of the GOM. He expects to submit this report to Baird for review in mid-December.

Baird has reviewed and collected available aerial photos and satellite images pre- and post-Hurricane Rita for the shoreline inshore of the Holly Beach Dredge Pit. Baird also continues to gather information on waves and currents along the Louisiana and Texas coast of the GOM.

Baird

*Task 1.2 Compile Information on Expected Dredging Projects to Determine Pit Sizes*

This task is underway and should be completed in the month of December.

*Task 1.3 Review of Physical Impacts for Buried Deposits and Sand Sheets*

Dr. Nairn received the Final Report of the SANDPIT project in late November and is currently reviewing the overall findings to assist in completing this task.

Information assembled for the MMS Infrastructure project, relevant to this assignment has been summarized for inclusion in the project report.

A review of the literature has been completed for pits that have been dredged along the Atlantic and GOM coast in offshore waters (but not necessarily federal water) including but not limited to: several pits off South Carolina (see Van Dolah et. al., 1998), pits offshore Florida (such as the Del Ray Beach Nourishment pits) and existing pits and channels along the GOM coast (such as the pits offshore Tampa studied by Blake et al., 1996).

*Task 1.4 Review of Biological Resources and Water Quality Conditions for the GOM and Atlantic Coast*

This review by Dr. Powers of Dauphin Island Sea Lab is also delayed due to the impacts of Hurricane Katrina on his work and home life. He expects to submit his Draft report to Baird & Associates in mid to late December, approximately four weeks behind schedule.

The work of Dr. Paul Montagna of the Marine Science Institute of the University of Texas on a similar evaluation focusing particularly on the benthic communities of the Texas and Louisiana coasts is underway. His work was belated due to delays in finalizing a subcontracting agreement between Baird and UT (this was completed in mid-November).

*Task 1.5 Review of Biological Impacts for Buried Deposits and Sand Sheets*

See the note on Dr. Powers' progress under the Task 1.4 summary above.

Baird

***Task 2 Design and Implement Generic Investigative Program to Examine Physical and Biological Impacts***

*Task 2.1 Field Program Design and Management*

The planning of the field data program is under way. We had originally hoped to complete the field work as early as December to avoid the logistics of planning field campaigns between the passage through the GOM of cold fronts from the north (that occur from January to March). However, Hurricane Rita knocked out the benchmarks we used for vertical reference/datum at Cameron for the previous hydrographic survey. In addition, most local ports where we had planned to stage the field campaign have been severely damaged or destroyed. We are working on alternative plans and it should not be a problem to complete the field survey on schedule. The schedule calls for the fieldwork to be completed by the end of Month 6 (which would be the beginning of April 06) as we had allowed a 3 month period for the survey (to work around bad weather).

*Task 2.2 Field Program Execution*

See the notes under Task 2.1, the survey is likely to occur between January and March 2006, on schedule.

*Task 2.2.1 Hydrographic Survey*

See the notes under Task 2.2 and Task 2.1 above.

*Task 2.2.2 Benthic and Sediment Sampling*

See the notes under Task 2.2 and Task 2.1 above.

*Task 2.2.3 Current Measurements with ADCP*

See the notes under Task 2.2 and Task 2.1 above.

*Task 2.2.4 Measurement of Water Quality Parameters*

See the notes under Task 2.2 and Task 2.1 above.

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*Task 2.3 Analysis of Field Data*

This will be completed once the field survey is complete.

*Task 2.3.1 Reduction of Hydrographic Data*

This will be completed once the field survey is complete.

*Task 2.3.2 Analysis of Benthos and Sediment Samples*

This will be completed once the field survey is complete.

*Task 2.3.3 Reduction of the ADCP Data*

This will be completed once the field survey is complete.

*Task 2.3.4 Reduction of the Water Quality Parameter Data*

This will be completed once the field survey is complete.

*Task 2.3.5 GIS Analysis of Shoreline Change Data*

Baird has collected the background information. The section of shoreline inshore of the dredge pit is protected by the long series of segmented breakwaters associated with the Holly Beach project. From an initial review of the aerial photos there is little indication that any impact of the pit will be discernible. Post-Hurricane Rita photos have also been reviewed. There is extensive damage to the Holly Beach protection project.

*Task 2.4 Numerical Modeling of Physical Processes*

Most of this task will be completed once the field survey is complete. Some of the review of impacts to the wave field may be performed in parallel with the field program schedule using the pre-existing pit bathymetry from the December 2004 survey.

*Task 2.5 Evaluation of Generic Physical Impacts*

This will be completed once field survey and Task 2.4 are complete.

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*Task 2.6 Evaluation of Generic Biological Impacts*

This will be completed once field survey and Task 2.4 are complete.

***Task 3 Preparation of the Draft and Final Technical Manuscript***

Appendices by Hayes and Anderson on geomorphology of Atlantic and Texas GOM coasts, respectively, are complete. Summaries are being prepared for the main body of the report.

***Task 4 Submission of Draft and Final Non-Technical Summary***

Not started.

***Task 5 Submission of Paper to Scientific/Engineering/Technical Journal***

Not started.

***Task 6 Presentation at MMS Information Transfer Meeting or Other Scientific/Technical Conference***

Not started.

***Task 7 Bi-Monthly Progress Reports***

This is the first progress report.

***Task 8 Presentation Slide Sets***

Not started.

***Task 9 Spatial Data Files***

A folder of spatial data files is currently being developed.

Baird

In summary, the project is progressing well but is three to four weeks behind our proposed schedule due to influence of Hurricane Rita and Katrina on the work and home life of key team members and on the logistics for the field survey. We expect to make up this time in the next three months with completion of the field program on schedule.

Please do not hesitate to contact the undersigned if you have any questions.

Yours truly,

W.F. Baird & Associates Ltd.

Rob Nairn Ph.D., P.Eng.

Principal

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| Cc: | Terri Callahan | CO |
| | Will Waskes, Alvin Jones | CIs |

Our File No. 10964